

## CURRICULUM VITAE



**Name** : **PRAKASH KUMAR**

**Designation** : Professor

**Phone No.** : 0326- 2350495(Off.) /  
0326- 2350729 Fax (Off.)  
**0326-3588513 (Res)**

**Mobile No.** : **+919431340536**  
: **+918809274758**

**E-mail ID** : **prakashkr.prod@bitsindri.ac.in**  
: **rawatprakash3671@gmail.com**

**Correspondance Address** : Professor & Head  
Dept. of Production and Industrial Engineering,  
P.O. Sindri Institute  
B.I.T. Sindri. Dhanbad – 828123

**Professional Qualification** : B.E.(PRODUCTION) , B.I.T. Mesra, Ranchi,  
Year of Passing – 1996  
I<sup>st</sup> Class, 69%.

M.Sc. Engg.(Production Technology), B.I.T. Sindri,  
Dhanbad. Vinoba Bhawe University, Hazaribag.  
Year of passing: 2009  
I<sup>st</sup> class, C.G.P.A –9.29

Ph.D. (Faculty of Engineering: Production Engg.),  
Vinoba Bhawe University, Hazaribag.  
Year: 2017

**Field of Specialization:**

Manufacturing Technology, Maintenance Technology, Lean Manufacturing and Industrial Management

**Membership of Professional Societies:**

1. Associate Member - Institution of Engineers (India). (Aug.2009)
2. Member of the Academic Council of Government Tool Room & Training Centre (GTRTC), Dumka. (Aug. 2011)
3. Life Member - Indian Society for Technical Education (I.S.T.E.). (July 2012)
4. Executive Member (Production Engineering Division, Dhanbad local centre) of Institution of Engineers (India). (Oct.2014)
5. Executive Member (Production Engineering Division, Dhanbad local centre) of Institution of Engineers (India). (Nov.2018)

**Professional Experience:**

- A) Worked as Production Engineer with P.K. Press Metals Pvt. Ltd. (A Tata Motors Ancillary) Jamshedpur, From July-1996 to Feb.1999
- B) Worked as Tech. Engineer with Tarapore & Co., Jojobera Power Plant (2 x 120 MW unit), Jojobera, Jamshedpur from March to June 99 (Fabrication Section-Station Building and Mill & Bunker)
- C) Worked as a Training Assistant, Workshop in B.I.T. Mesra, Ranchi from 5<sup>th</sup> July'1999-7<sup>th</sup> July'2000.
- D) Presently Working as a Professor, Dept. of Production Engg. B.I.T. Sindri, Dhanbad (Department of Higher, Technical Education and Skill Development, Govt. of Jharkhand, Ranchi).

**Successfully Completed Research Projects:**

1. Co-PI in a Project (9.75 lakh) entitled "Design and Development of a Proof-of-Concept Model of a Doubly Curved Membrane Based Gossamer Space Structures" (Project ID: 1-5730065406) Under Collaborative Research Scheme, TEQIP-III.
2. Co-PI in a Project (12.63 lakh) entitled "Development of 3D Printed User-Specific Assistive Devices for Persons with Disabilities in India" (Project ID: 1-5748310901) Under Collaborative Research Scheme, TEQIP-III.

3. Co-PI in a Project (8.30 lakh) entitled “Investigation to Fatigue and Vibration Characteristics of Rolling Element Bearing” (Project ID: 1-5761806271) Under Collaborative Research Scheme, TEQIP-III.

4. Co-PI in a Project (2.90 lakh) entitled “Optimization Technique for Smooth Supply Chains of Medical Equipment and Essential Medicine during COVID-19 Pandemic” (Ref. No. BIT/TEQIP/182/2020) Under TEQIP-III.

#### **Present Research Projects:**

1. CO-PI in a Project (9.86 lakh) “Vibration-assisted Laser Welding Process of Super Alloy and its Quality Analysis (Order Contact No. : DRDL/24CR0002/DOE/GN/DOMR) under CARS for Research Services, DRDO, Hyderabad.

2. Co-PI in a Project (33.61 lakh) entitled “Automated Design and 3D Printing-based Fabrication of Cost-effective Patient-specific Cranioplasty Implants” under the National Mission for Interdisciplinary Cyber Physical Systems Program (NMICPS) with the Technology Innovation Hub of IIT Kharagpur Artificial Intelligence for Interdisciplinary Cyber Physical Systems (TIH-AI4ICPS) an unit of IIT Kharagpur AI4ICPS I Hub Foundation.

#### **Patents (Filed/Granted)**

<b>Sl. No.</b>	<b>Name of the Inventor</b>	<b>Title of the Invention</b>	<b>Application / Patent No. (As applicable)</b>	<b>Year</b>	<b>Status (Filed / Granted)</b>
01.	i) Mr. Aniket Kumar ii) Mr. Kumar Abhineet iii) Prof. D.K. Singh iv) Prof. Prakash Kumar	IoT Based Vicinity Band	202031027168 (Patent application published on 31.12.21) The Patent Office Journal No. 53/2021 Dated 31/12/2021, Page No. 65772	2020 (26.6.2020)	Filed

### **Presently Guiding (PhD):**

Guiding 03 PhD Research Scholars

### **Projects Guided / Presently Guiding (M. Tech.):**

Guided 31 M. Tech. Projects

Guiding 03 M. Tech. Projects

### **Contribution towards Entrepreneurial Cell:**

- *Formation of Startup Cell*
- *Establishment of Incubation Centre*
- *Four Startups of our E-Cell have got selected from SEB and got grant (between 15-23 lakh) from ABVIL, Ranchi*
- *Grant of Rs. 50 Lakhs from ABVIL, Ranchi to our Incubation Centre*

### **Publication in National/International Journal:**

1. Published paper “Green Accounting and Environmental Index: Benchmarking for Green Court” in an **International Journal for Manufacturing Technology and Research, Jan-June, 2011, Vol. 7 No. 1, ISSN No. 0973-0281, Pg. 01-08.** By Research Promotion Cell, GLA University, Mathura. (Srivastava.R.K, Om Prakash, Prakash Kumar, S.K. Singh)
2. Published Paper: “An expert System for Predictive Maintenance of Mining Excavators and Its Various Forms in Open Cast Mining” in **IEEE Xplore -IEEE Conference Publication, Print ISBN: 978-1-4577-0694-3, Pg. 658-661, Publication Year 2012.** (Prakash Kumar, Srivastava.R.K) **Indexed by SCOPUS**  
**doi:10.1109/RAIT.2012.6194607,**  
URL: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6194607&isnumber=6194433>, **Citation-Journal of Intelligent Manufacturing-January 2014 (Springer), Paper- Intelligent maintenance prediction system for LED wafer testing machine.**
3. Published paper “Advanced Functional Maintenance Management for Mining Excavator” in an **International journal of Mechanical Engineering & Technology (IJMET) Volume 5, Issue 4, April (2014), pp. 199-205. ISSN 0976 – 6340 (Print), ISSN 0976 – 6359 (Online) Journal Impact Factor (2014): 7.5377 (Calculated by GISI) (Prakash Kumar, Rajak A.K.)**
4. Published Paper “Sliding Wear Behavior of Al Based Alloys for Equipment and Machineries” in an **International Journal of Science Engineering and Technology (IJSET) Volume 2, Issue 4, April- May-2014, pp. 40-47. ISSN 2348– 4098 (Print), Journal Impact Factor: 3.25, GIF: 0.489, ICV: 5.63 Points. (Rajak A.K., Prakash Kumar)**

5. Published Paper “Development of Condition Based Maintenance Architecture for Optimal Maintainability of Mine Excavators” in an **International Organization of Scientific Research- Journal of Mechanical and Civil Engineering (IOSR- JMCE)**. ISSN: 2320-334X (Print), ISSN: 2278-1684 (Online), Volume 11, Issue 3 Ver. V (May- June 2014), PP 18-22, Citation Reports: 66.3%, Impact Factor calculated by African Quality Centre for Journals (AQCJ) :1.485. DOI (Digital Object Identifier number: 10.9790/1684-11351822, Article ANED-DDL (Digital Data link) number: 13.1864/iosr-Jmce-C0113518, Link: <http://dx.doi.org> & [www.doi.org](http://www.doi.org) (Prakash Kumar, Srivastava R.K.)
6. Published paper “Flexible Maintenance Methodology for Mining Machinery” in an **International Journal for Manufacturing Technology and Research, Jan-June, 2014, Vol. 10 No. 1, ISSN No. 0973-0281, Pg. 07-15**. By Research Promotion Cell, GLA University, Mathura. ( Prakash Kumar, Samshad Ansari, Srivastava, R.K.)
7. Published paper “Implementing Lean and Agile Manufacturing System in the Electric Motor Industry for Sustainable Environment” in an **International Journal for Manufacturing Technology and Research, Jan-June, 2014, Vol. 10 No. 1, ISSN No. 0973-0281, Pg. 36-43**. By Research Promotion Cell, GLA University, Mathura. ( Prakash Kumar, Srivastava, R.K.)
8. Published Paper “Expert Maintenance System for Life Cycle Assessment of Heavy Machinery” in an **International Organization of Scientific Research- Journal of Mechanical and Civil Engineering (IOSR- JMCE)**. ISSN: 2320-334X (Print), ISSN: 2278-1684 (Online), Volume 11, Issue 4 Ver. VIII (July- Aug 2014), PP 59-64. Impact Factor: 1.485, (Digital Object Identifier number:10.9790/1684-11485964, Article ANED-DDL (Digital Data link) number is 13.1864/iosr-Jmce-J011485964, Link: <http://dx.doi.org> & [www.doi.org](http://www.doi.org) (Prakash Kumar, Piush Raj)
9. Published Paper “Utilizing Value Stream Mapping for Scheduled Optimization of Heavy-duty Earth-moving Vehicles” in an **International Organization of Scientific Research- Journal of Engineering (IOSR- JEN, UGC Approved Journal)**. ISSN: 2278-8719 (Print), ISSN: 2250-3021 (Online), Volume 04, Issue 9 Ver. 4 (September 2014), PP 22-31. Journal Impact Factor: 1.645, (Digital Object Identifier number: 10.9790/3021-04942231, ANED: 0.4/3021-04942231. (Suman Kumar Suman, Prakash Kumar)
10. Published Paper “Ergonomics: Application in Industries” in an **International Organization of Scientific Research- Journal of Mechanical and Civil Engineering (IOSR- JMCE)**. ISSN: 2320-334X (Print), ISSN: 2278-1684 (Online), Volume 11, Issue 5 Ver. V (Sep-Oct 2014), PP 100-105. Impact Factor: 1.485, (Digital Object Identifier number:10.9790/1684-1155100105, Link: <http://dx.doi.org> & [www.doi.org](http://www.doi.org) (Ravi Gupta, Om Prakash Mahto, Rakesh Kumar, Prakash Kumar)

11. Published Paper “Delay Analysis of Projects and Effects of Delays in the Mining/Manufacturing industries” in an **International Organization of Scientific Research- Journal of Mechanical and Civil Engineering (IOSR- JMCE)**. ISSN: 2320-334X (Print), ISSN: 2278-1684 (Online), Volume 12, Issue 6 Ver. IV (Nov- Dec 2015), PP 61-71. (Prakash Kumar, Piush Raj)
12. Published Paper “Tailoring of Specifications for Random Vibration Testing of Military Airborne Equipments from Measurement” in an **International Journal of Research in Engineering & Technology (IJRET)**. ISSN: 2321-7308 (Print), ISSN: 2319-1163(Online), Volume 04, Issue 12, Dec 2015. PP 293-299. Impact Factor: 3.127 by ISRA, IC Value: 6.53. (Bipin Kumar Das, Prakash Kumar)
13. Published Paper “Methods for Risk Management of Mining Excavator through FMEA and FMECA” in **The International Journal of Engineering and Science (The IJES)**. ISSN: 2319-1805 (Print), ISSN: 2319-1813 (Online), Volume 5, Issue 6 Ver. I, (June 2016), PP 57-63 (Prakash Kumar, Arvind Kumar). Impact Factor: 2.67.
14. Published Paper “Root Cause Analysis for Lean Maintenance Using Six Sigma Approach” in **The International Journal of Engineering and Science (The IJES)**. ISSN: 2319-1805 (Print), ISSN: 2319-1813 (Online), Volume 5, Issue 6 Ver. I, (June 2016), PP 40-47 (Kumar Gaurav, Prakash Kumar). Impact Factor: 2.67.
15. Published Paper “Conversion of Sponge Iron from Low Grade Iron Ore and Mill Scale through Simulating Tunnel Kiln Condition” in an **International Organization of Scientific Research- Journal of Mechanical and Civil Engineering (IOSR- JMCE)**. ISSN: 2320-334X (Print), ISSN: 2-1684 (Online), Volume 13, Issue 5 Ver.VI (Sep-Oct 2016), PP 49-54. (Rounak Sneha Anand, Prakash Kumar, D.N. Paswan)
16. Published Paper “Optimization of Welding Parameter (MIG Welding) Using Taguchi Method” in an **International Journal of Scientific Research and Education (IJSRE)** IJSAE Publication, Volume 4, Issue 11, Nov-2016, pp. 6053-6058. ISSN (e): 2321-7545 (Online), Impact Factor (SJIF): 5.169, DOI: <http://dx.doi.org/10.18535/ijres/v4i11.08>. (Pappu Kumar, Prakash Kumar)
17. Published Paper “Application of Agile Manufacturing in Small and Medium Scale Industries” in an **International Journal of Science Engineering and Technology (IJSET)** Volume 4, Issue 6, Nov-Dec 2016, pp. 805-814. ISSN: 2348-4098 (Online), ISSN 2395– 4752 (Print), Journal Impact Factor: 3.25, GIF: 0.489, ICV: 5.63 Points. (Shashi Ranjan, Prakash Kumar)
18. Published Paper “Kaizen for Quality and Productivity Improvement in Manufacturing Industry” in an **International Journal of Engineering Sciences and Research Technology (IJESRT)**, Jan 2017, pp. 19-32. ISSN: 2277-9655 (Online), Journal

**Impact Factor: 4.116, ICT<sup>TM</sup> Value: 3.00.** (Rajesh Mahto, Prakash Kumar).  
<http://www.ijesrt.com/Govt%20Women's%20Polytechnic,%20Ranchi.html>

19. Published paper “Optimization of Heat Treatment Process Parameter Using Taguchi and Fuzzy Logic Approach in Bearing Manufacturing Industry” in an **International Research Journal of Engineering and Technology (IRJET)** Volume 4, Issue 2, Feb 2017, pp. 1822-1828. ISSN: 2395-0056 (Online), ISSN: 2395-0072 (Print), **Impact Factor Value: 5.181.** (Rajesh Mahto, Sunny Kumar, Shashi Kumar, Prakash Kumar)
20. Published Paper: “Diagnostics Expert System for Mine Hydraulic Excavators” in an **“International Journal of Interdisciplinary Research (IJIR)”** Volume 3, Issue 1, March 2017 (Dr. K.N. Modi University, Newai, Rajasthan). pp. 11-18. ISSN: 2394-8361 (Print) (Prakash Kumar, Gaurav Bhadauria)
21. Published paper “Optimal Maintainability of Hydraulic Excavator through FMEA/FMECA” in an **International Journal of Research in Engineering and Science (IJRES)** Volume 5, Issue 5, May 2017, pp 36-45. ISSN: 2320-9364 (Online), ISSN: 2320-9356 (Print), **Impact Factor Value: 3.541.** (Vivek Kumar, Prakash Kumar)
22. Published Paper “Improving Material Removal Rate and Optimizing Various Machining Parameters in EDM” in **The International Journal of Engineering and Science (The IJES)**. ISSN: 2319-1805 (Print), ISSN: 2319-1813 (Online), Volume 6, Issue 6, Ver.1, (June 2017), PP 64-68 (Vivek Kumar, Prakash Kumar). **Impact Factor: 2.67 (Digital Object Identifier number: 10.9790/1813-0606016468.**
23. Published paper “Study of Casting Defects by Varying Molding Sand Properties and Temperature” in an **International Journal of Engineering Science Invention (IJESI)** (UGC Approved Journal, Sl. No. 3822, Journal No. 43302) Volume 6, Issue 11, Version-II, Nov 2017, pp. 18-25. ISSN: 2319-6734 (Online), ISSN: 2319-6726 (Print), **Impact Factor: 3.962.** (Sudhir Kishore, Prakash Kumar)
24. Published paper “Implementation of Poka Yoke in Needle Bearing Assembly Process” in an **International Journal of Engineering Science Invention (IJESI)** (UGC Approved Journal, Sl. No. 3822, Journal No. 43302) Volume 6, Issue 11, Version-III, Nov 2017, pp. 01-10. ISSN: 2319-6734 (Online), ISSN: 2319-6726 (Print), **Impact Factor: 3.962.** (Bhawesh Kumar, Rakesh, Prakash Kumar)
25. Published Paper “Condition Based Maintenance and Machine Diagnostics System for Heavy Duty Earth Moving Machinery” in an **International Journal of Science, Engineering and Technology (IJSET)** Volume 6, Issue 5, September- October-2018,

pp. 227-236. ISSN 2348– 4098 (Online), ISSN 2395-4752 (Print), Journal Impact Factor: 5.16 (Prakash Kumar)

26. Published paper “Optimization of the Process Parameters for MIG Welding of Dissimilar Welding Using Taguchi Method” in UGC approver Journal ‘**International Journal for Research in Engineering Application & Management**’ (IJREAM), Volume-04, Issue-08, Nov 2018, pp. 164-169. ISSN: 2454-9150, Impact Factor: 5.646, DOI: 10.18231/2454-9150.2018.1072. (Rakesh Kumar Raushan, Prakash Kumar)
27. Published paper “Effect of Process Parameters of Weld Joints on Submerged Arc Welding” in UGC approved Journal ‘**International Journal for Research in Engineering Application & Management**’ (IJREAM), Volume-04, Issue-08, Nov 2018, pp. 188-194. ISSN: 2454-9150, Impact Factor: 5.646, DOI: 10.18231/2454-9150.2018.1076. (Abhishek Kumar, Prakash Kumar)
28. Published Paper “Study the Effect of Tool Rotational Speed and Welding Speed on Mechanical Properties of Two Different Welded Aluminum Alloy” in an **International Journal of Science, Engineering and Technology (IJSET)** Volume 6, Issue 6, November- December-2018, pp. 256-268. ISSN 2348– 4098 (Online), ISSN 2395-4752 (Print), Journal Impact Factor: 5.16 (Shyamdeo Ram, Prakash Kumar)
29. Published Paper “Implementation of Lean Manufacturing in Discrete Industry” in an **International Organization of Scientific Research- Journal of Engineering (IOSR-JEN, UGC Approved Journal)**. ISSN: 2278-8719 (Print), ISSN: 2250-3021 (Online), Volume 10, Issue 8, Series- I (August 2020), pp 01-07. Journal Impact Factor: 6.645 (Nawal Kishor Singh, Prakash Kumar)
30. Published Paper “Optimization of the Process Parameters in TIG Welding Process Using DoE and Regression Analysis” in UGC approved Journal ‘**International Journal for Research in Engineering Application & Management**’ (IJREAM), Volume-06, Issue-07, Oct. 2020, pp. 146-150, ISSN: 2454-9150, Impact Factor: 6.466, DOI: 10.35291/2454-9150.2020.0649. (Santosh Kumar, Prakash Kumar)
31. Published Paper “A review on developments of deployable membrane-based reflector antennas” in “**Advances in Space Research Journal**”, 3<sup>rd</sup> July, 2021, (SCI-<https://www.sciencedirect.com/science/article/abs/pii/S0273117721005378?via%3Dihub>) DOI: <https://doi.org/10.1016/j.asr.2021.06.051>, pp. 3749-3764, Impact Factor: 2.152 (Mukesh Chandra, Satish Kumar, Somnath Chattopadhyaya, Sayan Chatterjee, Prakash Kumar)
32. Published Paper “Smart Logistics and Efficient Supply Chain for Discrete Industry” in an **International Organization of Scientific Research- Journal of Engineering (IOSR-JEN, UGC Approved Journal)**. ISSN: 2278-8719 (Print), ISSN: 2250-3021 (Online), Volume 11, Issue 11, Series- I (November 2021), pp 11-17. Journal Impact Factor: 6.645 (Atul Kumar, Prakash Kumar)



33. Published Paper “Optimization of MIG Welding Process Parameter for Improving Strength” in an **International Organization of Scientific Research- Journal of Engineering (IOSR- JEN, UGC Approved Journal)**. ISSN: 2278-8719 (Print), ISSN: 2250-3021 (Online), Volume 11, Issue 12, Series- I (December 2021), pp 22-29. **Journal Impact Factor: 6.645** (Kundan Kumar Sharma, Prakash Kumar)
34. Published Paper “Challenges and Opportunities of ERP implementation in Indian SMEs: A case study of Jharkhand” in **Materials Today Proceedings (A Conference Proceedings Journal), Indexed in ELSEVIER. (March 2023)**  
<https://doi.org/10.1016/j.matpr.2023.02.150>  
 (Rahul Kumar Pandey, Prakash Kumar)
35. Published Paper “Waste Reduction in Production Processes in the Discrete Industry through VSM” in an **International Journal of Mechanical and Production Engineering (IJMPE)** ISSN (p): 2320-2092, ISSN (e): 2321-2071, Volume-11, Issue-10. (October 2023) **Journal Impact Factor: 3.05**  
 (Mayank Kumar Pandey, Prakash Kumar and Ashok Kumar)
36. Published Paper “Optimization of Spare Parts Inventory Management in the Automobile Service Centre” in an **International Journal of Mechanical and Production Engineering (IJMPE)** ISSN (p): 2320-2092, ISSN (e): 2321-2071, Volume-11, Issue-10. (October 2023) **Journal Impact Factor: 3.05**  
 (Ashok Kumar, Prakash Kumar and Mayank Kumar Pandey)

### **Paper Published in International Seminars/Conference:**

1. Presented paper: “Process and Product Optimization in the Production of Gear Manufacturing” in **International Conference on “Multi body Dynamics (ICMBD)”** from 24<sup>th</sup> -26<sup>th</sup> February 2011 at K.L University Vijaywada, A.P. ISSN No. 0972-5768, **Pg.415-427.** (Srivastava.R.K, M.K.Sikariwal, Prakash Kumar)
2. Presented Paper: “An expert System for predictive maintenance of mining excavators and its various forms in open cast mining” in “1<sup>st</sup> **International Conference on Recent Advances in Information Technology RAIT-2012**” from March 15<sup>th</sup> -17<sup>th</sup>, 2012 at ISM, Dhanbad. (Prakash Kumar, Srivastava.R.K)  
**ISBN: 978-93-80813-17-2, Pg.231-234.**
3. Presented paper: “Effect of Cooling Rate and Thermo-mechanical Processing Parameters on the Microstructure and Mechanical Properties of the API X60 Grade Steel” in **International Conference on “Metallurgical and Materials Processes, Products and Applications (ICMMPPA)”** from 8<sup>th</sup>-10<sup>th</sup> January 2014 at O.P.Jindal Institute of Technology, Raigarh (Chhatisgarh). (Sunil Kumar, Prakash Kumar, Srivastava.R.K)

4. Presented Paper: “Model Based Fuzzy Logic Approach for Optimal Maintenance of Mine Hydraulic Excavators” in an **“International Conference on Evolutions in Manufacturing: Technologies and Business Strategies for Global Competitiveness (ICEM-2016)”** from November 12<sup>th</sup> -13<sup>th</sup>, 2016 at B.I.T. Mesra, Ranchi. (Prakash Kumar, Anurag Anand)  
**Published by Excel India Publishers, New Delhi, First Impression: November, 2016, ISBN: 978-93-86256-11-9, Pg.167-172.**
5. Presented Paper: “Diagnostics Expert System for Mine Hydraulic Excavators” in an **“International Conference on Research, Skilling and Employability in Mechanical and Automobile Engineering (ICRSEMAE-2017)”** from Feb 22<sup>th</sup> -23<sup>rd</sup>, 2017 at Dr. K.N. Modi University, Rajasthan. **Pg. 21-28.** (Prakash Kumar, Gaurav Bhaduria)
6. Co-author in a Paper: “Process Parameter Optimization in EDM: A Multi-objective Approach using Metaheuristic” in an **“International Conference on Advances in Materials and Manufacturing Engineering - 2019 (ICAMME-2019)”** from March 15<sup>th</sup> -17<sup>th</sup>, 2019 at Kalinga Institute of Industrial Technology (KIIT), Bhubaneswar (Organized by School of Mechanical Engineering). (Surya Narayan Panda, Ajit Kumar Pattanaik, Pradip Kumar Sahu, Prakash Kumar and Bijay Kumar Khamari )  
**Springer Nature Singapore Pte Ltd. 2020, L.Li et al. (eds.), Advances in Materials and Manufacturing Engg., Lecture Notes in Mechanical Engineering, Indexed by SCOPUS. ([http://doi.org/10.1007/978-981-15-1307-7\\_21](http://doi.org/10.1007/978-981-15-1307-7_21)) Pg. 193-201, Year 2020**
7. Presented Paper: “Estimation of Residual Stress and Deformation of Laser Deposited Tracks of Ni-5Mo-5Al Powder Using Thermo-Mechanical Finite Element Simulation” in an **“International Conference on Materials Science and Manufacturing Technology 2019 (ICMSMT 2019)”** from April 12<sup>th</sup> -13<sup>th</sup>, 2019 at Hotel Aloft, Coimbatore, Tamil Nadu. (Ankit Shrivastava, Vikash Kumar, Vivek Singh, Sumanta Mukherjee, Prakash Kumar and Sitanshu Shekhar Chakraborty)  
**Published in the IOP Science: Material Science and Engineering (A Conference Proceedings Journal), Indexed in SCOPUS. Pg. 595-600.**  
**<https://doi.org/10.1088/1757-899X/561/1/012059>**
8. Presented Paper: “Effect of process parameters on geometrical aspects in direct metal laser deposition of Ni5Mo5Al hardface coating” in an **“International Conference on Materials Science and Manufacturing Technology 2019 (ICMSMT 2019)”** from April 12<sup>th</sup> -13<sup>th</sup>, 2019 at Hotel Aloft, Coimbatore, Tamil Nadu. (Vikash Kumar, Ankit Shrivastava, Debapriya Patra Karmakar, Shitanshu Shekhar Chakraborty, Himadri Roy, Muvvala Gopinath, Prakash Kumar and Sumanta Mukherjee )  
**Published in the IOP Science: Material Science and Engineering (A Conference Proceedings Journal), Indexed in SCOPUS. Pg. 617-621.**  
**<https://doi.org/10.1088/1757-899X/561/1/012063>**
9. Co-author in a Paper: “Experimental Investigation on Effect of Cold and Hot Reciprocating Wire TIG Welding on Carbon Steel” in a **“6<sup>th</sup> International Conference**

**on Production and Industrial Engineering (CPIE-2019)”** from June 8<sup>th</sup> -10<sup>th</sup>, 2019 at Dr B R Ambedkar National Institute of Technology, Jalandhar (Panjab) (Organized by Department of Industrial and Production Engineering). (Tanmay, Mukesh Chandra and Prakash Kumar)

10. Co-author in a Paper: “Design and Analysis of MFC Based Energy Harvesting Systems” in a **“6<sup>th</sup> International Conference on Production and Industrial Engineering (CPIE-2019)”** from June 8<sup>th</sup> -10<sup>th</sup>, 2019 at Dr B R Ambedkar National Institute of Technology, Jalandhar (Panjab) (Organized by Department of Industrial and Production Engineering). (Satish Kumar, Kunal Kumar, Prabhat Thakur and Prakash kumar)
11. Presented Paper: “IoT Based Maintenance System for Mine Hydraulic Excavators” in an **“International Symposium on 5G and Beyond for Rural Upliftment”** from Feb 8<sup>th</sup> -9<sup>th</sup>, 2020 at BIT Sindri, Dhanbad. (Organized by Department of Electronics Engineering, IIT(ISM) Dhanbad and BIT Sindri under Twinning Activity, TEQIP-III) (Prakash Kumar) **Pg.164-170.**  
**Conference Proceeding: Published by River Publishers Series in Information Science and Technology, ISBN: 9788770222181, e-ISBN: 9788770222174, Page No. 243-253**
12. Presented Paper: “A Comparative Evaluation of Process Parameter Optimization of Wire Cut Electric Discharge Machining of Ti-6Al-4V Using WASPAS and Metaheuristic Methods” in a **TEQIP III Sponsored 2<sup>nd</sup> International Conference (Digital) Research and Innovation in Science, Engineering and Technology (ICRISET-2020)** from 4<sup>th</sup>-5<sup>th</sup> September 2020, Organized by BVM Engineering College, Vallabh Vidyanagar, Gujarat. (J.J. Tudu, S.N. Panda, P. Kumar, B. Das)  
**Published in Scopus Indexed Journal (ISSN: 00333077) Psychology and Education (2021) 58(1): 5860-5863, DOI/URL: <https://doi.org/10.17762/pae.v58i1.3664>, Pg. 5860-5863**
13. Presented Paper: “Deep Learning Model to Predict Pneumonia Disease Based on Observed Patterns in Lung X-rays” in a **4<sup>th</sup> International Conference on Electronics, Communication and Aerospace Technology on 5<sup>th</sup> to 7<sup>th</sup> November 2020 (ICECA 2020) IEEE Xplore ISBN: 978-1-7281-6387-1, IEEE Conference Publication. Publication Year 2020, Pg. 848-853** (Organized by RVS Technical Campus, Coimbatore, Tamil Nadu) (Utkarsh Singh, Aditi Totla, Prakash Kumar)
14. Presented Paper: “Implementation of Networked Technologies and Smart Manufacturing during COVID-19 Pandemic” in an **“International Symposium on 7-In-1”** from 21<sup>st</sup> - 22<sup>nd</sup> June 2021 at CGC, Innovatorium, Room 209, AU, BIRK CENTER PARK 40, 7400 HERNING, DENMARK and Online Mode (Hybrid Mode), (Prakash Kumar)
15. Presented Paper: “Mechanical and electrochemical properties of friction stir processed magnesium alloy AZ31 for biomedical applications: A pilot study” in an “3rd

International Conference on Contemporary Advances in Mechanical Engineering”, in September 2021(Anshu Priya, Ankit Shrivastava, Sakila Khatun, Shitanshu S. Chakraborty, Poulomi Roy, Kashif Hasan Kazmi, Prakash Kumar, Sumanta Mukherjee)

**Published in Material Today Proceedings (A Conference Proceedings Journal), Indexed in ELSEVIER.**

<https://doi.org/10.1016/j.matpr.2021.09.384>

16. Presented Paper: “Analysis and Optimization of Geometry of 3D Printer Part Cooling Fan Duct” in an “2nd International Conference on Functional Material, Manufacturing and Performances”, in October 2021(Mantu Chaudhary, Sumanta Mukherjee, Prakash Kumar)

**Published in Material Today Proceedings (A Conference Proceedings Journal), Indexed in ELSEVIER.**

<https://doi.org/10.1016/j.matpr.2021.10.444>

17. Presented Paper: “Evolution of Mechanical and Tribological Characteristics of Hot-pressed Self-lubricating CuO/MgO/ZTA Ceramic Composites” in an “2nd International Conference on Functional Material, Manufacturing and Performances”, in October 2021(Md Sajid Hussain, Sourav Goswami, Kunal Ghosh, Prakash Kumar, Nilrudra Mandal)

**Published in Material Today Proceedings (A Conference Proceedings Journal), Indexed in ELSEVIER.**

<https://doi.org/10.1016/j.matpr.2021.10.507>

18. Co-author in a Paper: “A review on Design Consideration of Reconfigurable Manufacturing System” in an “ **International Conference on Advancements in Interdisciplinary Research (AIR - 2022)**” from May 6<sup>th</sup> -7<sup>th</sup>, 2022 at Motilal Nehru National Institute of Technology, Allahabad, Prayagraj (UP) (Organized by Department of Applied Mechanics). (Anurag Anand and Prakash kumar)

### **Publication in Book Chapters:**

1. Published paper: “Challenges and Opportunities for Lean 4.0 in Indian SMEs: A Case Study of Jharkhand” in Springer Nature Book Title “Industry 4.0 Technologies: Sustainable Manufacturing Supply Chains” in a Book Subtitle: Volume-II-Methods of Transition and Trends (ISBN: 978-981-99-4893-2) June 2023. (Sonu Kumar and Prakash Kumar)

2. Published paper: “Effective Supply Chain Management Using SEIR Simulation Models for Efficient Decision-Making During COVID-19” in Springer Nature Book Title “Industry 4.0 Technologies: Sustainable Manufacturing Supply Chains”, Book Subtitle: Volume-II-Methods of Transition and Trends (ISBN: 978-981-99-4893-2) June 2023. (Sourav Suman, Prakash Kumar and Kashif Hasan Kazmi)

### **Paper Published in National Seminars/Conference/ Workshop:**

1. Presented paper: "Role of Lean Manufacturing in Quality Engineering System" in National Workshop on "Technological Challenges of 21<sup>st</sup> Century-The Road Ahead" from 8<sup>th</sup>– 9<sup>th</sup> Feb. 2008 at B.I.T. Sindri. Pg.141-152. (Prakash Kumar, Srivastava.R.K)

2. Presented paper: "Role of Green Accounting in Sustainable Development" in National Seminar on (EIGMI2008) "Environmental Issues on Geo Techniques and Mineral Industries" from 4<sup>th</sup>-5<sup>th</sup> April 2008 at B.I.T. Sindri. (Srivastava.R.K,Om Prakash,Rakesh,Prakash Kumar)

**Published by Excel India Publishers, New Delhi, First Impression: 2008, ISBN: (978-81-906531-1-4), Pg. 362-369.**

3. Presented paper: "Application of Eco-efficiency Indicators for Process Design in the Large-Scale Industries through Lean Approach" in "World Environment Day Seminar-2009" on 5<sup>th</sup> June 2009 at B.I.T. Sindri. Pg.47-56. (Srivastava.R.K,Om Prakash,Prakash Kumar)

4. Presented paper: "Role of Data Mining in Climatic Change Evaluation" in 42<sup>nd</sup> Engineer's Day (15<sup>th</sup> Sept.2009) on a Seminar "Engineering Solution to Combat Climate Change" at Engineer's Building, Dhanbad. (Srivastava.R.K,Prakash Kumar)

5. Presented paper: "Technology Management: An Integrated Approach for Eco-Friendly Product Remanufacturing" in 43<sup>rd</sup> Engineer's Day (15<sup>th</sup> Sept.2010) on a Seminar "Impending Paradigm Shift in Engineering. Science and Future Challenges" at B.I.T. Sindri. Pg.15-22. (Srivastava.R.K, Prakash Kumar)

6. Presented paper: "Positioning Lean and Green for Sustainable Environment" in National Conference on "Eco-Friendly Manufacturing for Sustainable Development" from 19<sup>th</sup> -21<sup>st</sup> November 2010 at Institute of Engineering & Technology, GLA University, Mathura. (Prakash Kumar,Srivastava.R.K)

7. Presented paper: "Green Accounting and Environmental Index: Benchmarking for Green Court" in National Conference on "Eco-Friendly Manufacturing for Sustainable Development" from 19<sup>th</sup> -21<sup>st</sup> November 2010 at Institute of Engineering & Technology, GLA University, Mathura. (Srivastava.R.K,Om Prakash,Prakash Kumar,S.K.Singh)

8. Presented paper: "Product and Process Innovation through Change Management" in National Seminar on "Innovation and Creativity for Business Excellence" from 17<sup>th</sup> - 18<sup>th</sup> February 2011 at ISM, Dhanbad. (Srivastava.R.K,Prakash Kumar)

**(Published in a Book “Innovation and Creativity for Business Excellence” by Excel India Publishers, New Delhi, First Impression: 2011, ISBN: 978-93-81361-60-3), Pg. 13-19.**

9. Presented Paper: “Future Scenario for Water Conservation in and around B.I.T. Sindri” in Workshop on “Water for Cities: Responding to the Urban Challenge” on 14<sup>th</sup> May 2011, World Water Day at Kalyan Bhawan, Dhanbad (Organized by IEI, Dhanbad, and CIMFR, Dhanbad) (Srivastava.R. K, Prakash Kumar, A.K. Rajak)

10. Presented Paper: “Developing probabilistic Model for Fire in Industrial and Environmental Practices” in All India Seminar on “Advances in Mine Production and Safety” from 26<sup>th</sup> -27<sup>th</sup> Aug 2011 at CIMFR, Dhanbad (Organized by IEI, Dhanbad, and CIMFR, Dhanbad) Pg. 199-206. (Srivastava.R.K,Prakash Kumar)

11. Presented Paper: “Development of Industry institution Interaction through Corporate Social Responsibility” in National Seminar on “Academic Institutes-Industries Interaction” from 24<sup>th</sup> -25<sup>th</sup> September 2011 (Jointly organized by CIT, Tatisilwai, Ranchi and IEI, Ranchi. Pg.123-127 (Srivastava.R. K, Prakash Kumar, R.N.Gupta)

12. Presented Paper: “An expert System for predictive maintenance of mining equipments used in open cast mining” in “National Conference on “Competitive Manufacturing: Strategies and Decision Support System” from 5<sup>th</sup> - 6<sup>th</sup> Nov 2011 at GLA University, Mathura. (Prakash Kumar,Srivastava.R.K)

13. Presented Paper: “Nuclear Power Plant with Condition Based and Reliability Centered Maintenance for Plant Life Management” in National Seminar on “Indian Nuclear Power Programme - Challenges and Opportunities (INCO-12)” from 14<sup>th</sup> -15<sup>th</sup> April 2012 at B.I.T. Sindri, Dhanbad. (Prakash Kumar,Srivastava.R.K, A.K.Rajak)

14. Presented Paper: “Maintenance Optimization Techniques in Nuclear Power Plant” in National Seminar on “Indian Nuclear Power Programme- Challenges and Opportunities (INCO-12)” from 14<sup>th</sup> -15<sup>th</sup> April 2012 at B.I.T. Sindri, Dhanbad. (Prakash Kumar,Srivastava.R.K)

15. Presented Paper: “Fire Protection Modeling for Nuclear Power Plant” in National Seminar on “Indian Nuclear Power Programme - Challenges and Opportunities (INCO-12)” from 14<sup>th</sup> -15<sup>th</sup> April 2012 at B.I.T. Sindri, Dhanbad. (Srivastava.R.K, Prakash Kumar,)

16. Presented Paper: “Modern Trends in Nuclear Power generation” in National Seminar on “Indian Nuclear Power Programme - Challenges and Opportunities (INCO-12)” from 14<sup>th</sup> -15<sup>th</sup> April 2012 at B.I.T. Sindri, Dhanbad (Chaudhary. S.K, R. Anil Kumar, Prakash Kumar, Soren S.K)

17. Presented Paper: “Maintenance Strategy Development for a Mine hydraulic Excavator” in “27<sup>th</sup> National Convention of Production Engineers and National Seminar on Advancement in Manufacturing-Vision 2020” from 25<sup>th</sup> -26<sup>th</sup> May 2012 at B.I.T. Mesra, Ranchi. (Prakash Kumar, Srivastava.R.K)

18. Presented Paper: “Development of Life Cycle Model through Preventive Maintenance and Fault Tree Analysis for Horizontal Boring machine” in “27<sup>th</sup> National Convention of Production Engineers and National Seminar on Advancement in Manufacturing-Vision 2020” from 25<sup>th</sup> -26<sup>th</sup> May 2012 at B.I.T. Mesra, Ranchi.  
(Prakash Kumar, Srivastava.R.K, Pivush Raj)

19. Presented paper: “Enhancing Social cost Benefit through Innovative Project Management” in a National Seminar on “Innovation in Administration and Project Management” on 1<sup>st</sup> December 2012 at C.I.T. Tatisilwai, Ranchi under TEQIP-II.  
(Prakash Kumar, R.P. Sharma, R.K. Srivastava)

20. Presented paper: “Product Remanufacturing for Sustainable Environment” in a National Seminar on “Energy and Environment for Sustainability – EES (2013)” from 16<sup>th</sup> -17<sup>th</sup> March 2013 at B.I.T. Sindri, Dhanbad. (Prakash Kumar, Rajak. A.K.)

**Published by Excel India Publishers, New Delhi, First Impression: 2013, ISBN: 978-93-82880-18-9), Pg. 81-86.**

21. Presented paper: “Green Manufacturing for Sustainable development” in a National Seminar on “Energy and Environment for Sustainability – EES (2013)” from 16<sup>th</sup> -17<sup>th</sup> March 2013 at B.I.T. Sindri, Dhanbad. (Prakash Kumar, R.K. Srivastava)

**Published by Excel India Publishers, New Delhi, First Impression: 2013, ISBN: 978-93-82880-18-9), Pg. 95-99.**

22. Presented paper: “Optimizing Power Plant Efficiencies for Effective Growth in Energy Sector” in a National Seminar on “Energy and Environment for Sustainability – EES (2013)” from 16<sup>th</sup> -17<sup>th</sup> March 2013 at B.I.T. Sindri, Dhanbad. (R.K. Srivastava, Prakash Kumar)

**Published by Excel India Publishers, New Delhi, First Impression: 2013, ISBN: 978-93-82880-18-9), Pg. 195-199.**

23. Presented paper: “Effect of Environmental Pollution on Water in Urban Areas” in a National Seminar on “Energy and Environment for Sustainability – EES (2013)” from 16<sup>th</sup> -17<sup>th</sup> March 2013 at B.I.T. Sindri, Dhanbad. (Rajak. A.K., Prakash Kumar)

**Published by Excel India Publishers, New Delhi, First Impression: 2013, ISBN: 978-93-82880-18-9), Pg. 87-91.**

24. Presented paper: “Implementing Lean and Agile Manufacturing System in the Electric Motor Industry for Sustainable Environment” in National Symposium on “Cleaner Production: Technologies & Strategies” from 25<sup>th</sup> -26<sup>th</sup> October 2013 at GLA University, Mathura. (Prakash Kumar, Srivastava.R.K)

25. Presented paper: “Flexible Maintenance Methodology for Mining Machinery” in National Symposium on “Cleaner Production: Technologies & Strategies” from 25<sup>th</sup> - 26<sup>th</sup> October 2013 at GLA University, Mathura. (Prakash Kumar, Samshad Ansari, Srivastava.R.K)

26. Presented paper: “Modern Management Methods for Mining Machinery (Excavator) Maintenance” in an All-India Seminar on “Recent Advancement in Manufacturing and its Management (RAMM-14)” from 7<sup>th</sup> -8<sup>th</sup> February 2014 at B.I.T. Sindri, Dhanbad (Prakash Kumar, R.K. Srivastava)

27. Presented paper: “Application of Green Manufacturing for Cleaner Production” in an All-India Seminar on “Recent Advancement in Manufacturing and its Management (RAMM-14)” from 7<sup>th</sup> -8<sup>th</sup> February 2014 at B.I.T. Sindri, Dhanbad. (Prakash Kumar, R.K. Srivastava, A.K. Rajak)

28. Presented paper: “Optimization of Process Parameters for Production of Metal Foam” in an All India Seminar on “Recent Advancement in Manufacturing and its Management (RAMM-14)” from 7<sup>th</sup> -8<sup>th</sup> February 2014 at B.I.T. Sindri, Dhanbad. (R.K. Srivastava, Prakash Kumar, Dhananjay Mistry)

29. Presented paper: “Development of Strategy for Lead Time Reduction in an Automobile Company through Lean Technique” in an All India Seminar on “Recent Advancement in Manufacturing and its Management (RAMM-14)” from 7<sup>th</sup> -8<sup>th</sup> February 2014 at B.I.T. Sindri, Dhanbad. (Suman Kumar Suman, Prakash Kumar)

30. Presented paper: “Spare Parts Inventory Management through FSN & VED Analysis in a Manufacturing Industry” in an All India Seminar on “Recent Advancement in Manufacturing and its Management (RAMM-14)” from 7<sup>th</sup> -8<sup>th</sup> February 2014 at B.I.T. Sindri, Dhanbad. (Vikas Kumar, Prakash Kumar)

31. Presented paper: “Development of a Maintenance System with an Integrated Approach for Optimal Maintainability of Mine Excavators” in a National Conference on “Global Competitiveness through Quick Response Manufacturing- Challenges and Opportunities for Indian Manufacturers (Organized by IIPE UP State Centre, Mathura & Research Promotion Cell, GLA University, Mathura) from 18<sup>th</sup> -20<sup>th</sup> April 2014 at GLA University , Mathura. (Prakash Kumar, Srivastava.R.K)

32. Presented paper: “Application of System Dynamics for Solid Waste Management” in National Seminar on “Environmental Issues: Protection, Conservation and Management (EIPCM)” from 26<sup>th</sup> -27<sup>th</sup> February 2016 at B.I.T. Sindri, Dhanbad. (Prakash Kumar, Srivastava.R. K)

**Published by Excel India Publishers, New Delhi, First Impression: Feb. 2016, ISBN: 978-93-85777-28-8), Pg. 21-27.**

33. Presented paper: “Metallurgical Wastes and its Effect on Public Health” in National Seminar on “Environmental Issues: Protection, Conservation and Management



(EIPCM)” from 26<sup>th</sup> -27<sup>th</sup> February 2016 at B.I.T. Sindri, Dhanbad. (A.K.Rajak, Prakash Kumar)

**Published by Excel India Publishers, New Delhi, First Impression: Feb. 2016, ISBN: 978-93-85777-28-8), Pg. 28-33.**

34. Presented Paper: “Kaizen for Quality and Productivity Improvement in Manufacturing Industries” in a “**National Conference on Advances in Science and Technologies**” from January 7<sup>th</sup> - 8<sup>th</sup>, 2017 at Government Women’s Polytechnic, Ranchi. (Rajesh Mahto, Prakash Kumar)

35. Presented Paper: “Implementation of Lean Manufacturing Techniques for Minimization of Wastes in Manufacturing Industry” in “32<sup>nd</sup> National Convention of Production Engineers (NCPE 2017) and National Seminar on **Improving Competitiveness in Manufacturing – “Make in India” to “Made in India”** from 27<sup>th</sup> -28<sup>th</sup> May 2017 at Engineer Bhawan, Nepal House, Doranda, Ranchi. (Rajesh Mahto, Prakash Kumar)

**Published by Excel India Publishers, New Delhi, First Impression: May 2017, ISBN: 978-93-86256-87-4), Pg. 14-22.**

36. Presented Paper: “Advances in Eco-friendly Tools for Environmental Management in Manufacturing Sectors” in “32<sup>nd</sup> National Convention of Production Engineers (NCPE 2017) and National Seminar on **Improving Competitiveness in Manufacturing – “Make in India” to “Made in India”** from 27<sup>th</sup> -28<sup>th</sup> May 2017 at Engineer Bhawan, Nepal House, Doranda, Ranchi. (R.K. Srivastava, Prakash Kumar)

**Published by Excel India Publishers, New Delhi, First Impression: May 2017, ISBN: 978-93-86256-87-4), Pg. 23-29.**

37. Presented Paper: “Maintenance Prediction using Diagnostic Expert Systems for Mine Hydraulic Excavator” in “**33<sup>rd</sup> National Convention of Environmental Engineers on Status of Technological Advancement to Meet the Environmental Norms for Indian Mining and Allied Industries**” from 24<sup>th</sup> -25<sup>th</sup> August 2017 at Directorate General of Mines and Safety (DGMS), Dhanbad. **Pg. 158-167.** (Prakash Kumar, Srivastava.R.K)

38. Presented Paper: “New Generation Robot: A Manufacturing Transformer” in “**National Seminar on Techno- Nationalistic Interventions for Enhancing Innovativeness**” on 11<sup>th</sup> December 2017 at B.I.T. Sindri, Dhanbad. (Prakash Kumar)

39. Presented Paper: “Green Supply Chain Management in Indian Automotive Industry: Complexities and Challenges” in “**National Conference on Science and Technology of Special Steels & Nanomaterials**” from 17<sup>th</sup>-18<sup>th</sup> February 2018 at B.I.T. Sindri, Dhanbad. (Prakash Kumar)

40. Delivered expert talk on "New Generation Robot- Animal Robot to Humanoid" in a five days Workshop "**Manufacturing Automation, Robotics and Factory of Future**" under TEQIP-III (3<sup>rd</sup> October to 7<sup>th</sup> October 2018) at B.I.T. Sindri, Dhanbad.

41. Presented Paper: "Ductility Improvement in Commercially Pure Aluminium by Friction Stir Processing" in a **National Online Conference on Research and Developments in Material Processing, Modelling and Characterization 2020** from 26<sup>th</sup>-27<sup>th</sup> August 2020 (Organized by Department of Metallurgical and Materials Engineering in association with the Department of Production and Industrial Engineering, NIT Jamshedpur, sponsored by TEQIP III. (Abhishek Kumar Jha, Md. Mofeed Alam, Shitanshu S. Chakraborty, Kashif Hasan Kazmi, Prakash Kumar and Sumanta Mukherjee)

**Published in Scopus Indexed Journal, Next Generation Materials and Processing Technologies, Page No. 27-39, DOI: 10.1007/978-981-16-0182-8\_3, Year 2021 (Part of the Springer Proceedings in Materials Book Series (SPM, Vol. 9).**

42. Co-author in a Paper: Trends and future scopes in application of artificial intelligence in steelmaking: insights from the scientometric and bibliometric analysis in an Industry-Academia Conclave on Digital Transformation in Steel Manufacturing from 10<sup>th</sup>-11<sup>th</sup> December 2021 at SAIL Burnpur, West Bengal (Organized by IISCO Steel Plant, SAIL). (Sumanta Mukherjee, Kashif Hasan Kazmi, Prakash Kumar)

43. Presented Paper: "Failure Prediction using Artificial Intelligence for Heavy Duty Equipment" in a **Symposium on Failure and Preventive Maintenance of Machineries (FPMM-2022)** from 8<sup>th</sup>-9<sup>th</sup> March 2022 (Organized by CSIR-Central Mechanical Engineering Research Institute, Durgapur) (Prakash Kumar)

**Published in Material Today Proceedings, Volume 66, Part 5, 2022, Pages 3154-3161 (A Conference Proceedings Journal), Indexed in ELSEVIER.**

**<https://doi.org/10.1016/j.matpr.2022.08.026>**

44. Co-author in a Paper: "3D Printing of single-walled objects" in a **Symposium on Failure and Preventive Maintenance of Machineries (FPMM-2022)** from 8<sup>th</sup>-9<sup>th</sup> March 2022 (Organized by CSIR-Central Mechanical Engineering Research Institute, Durgapur) (Anurag Agrawal, Prakash Kumar, Sumanta Mukherjee)

45. Co-author in a Paper: "Modeling of deposition profile in robotic MIG-based Wire-Arc Additive Manufacturing" in a **Symposium on Failure and Preventive Maintenance of Machineries (FPMM-2022)** from 8<sup>th</sup>-9<sup>th</sup> March 2022 (Organized by CSIR-Central Mechanical Engineering Research Institute, Durgapur) (Kashif Hasan Kazmi, Prakash Kumar, Sumanta Mukherjee)

### **Seminars and Workshops Attended (Excluding Paper Presentation):**

1. Participated in National Conference on Agile Engg. B.I.T. Mesra, Ranchi from 4<sup>th</sup> – 5<sup>th</sup> Oct.1999
2. Participated in three days Seminar/Workshop (Blue Print for Success) 29<sup>th</sup>-31<sup>st</sup> August'2006 'Changing the mind set' by Mr. Shiv Khera, organized by NPFU & Sc. &Tech., Govt. of Jharkhand, Ranchi.
3. Participated in National Workshop on “Technological Excellence through Value Engineering” Under TEQIP on 7<sup>th</sup> April2007, at B.I.T. Sindri, Dhanbad.
4. Participated in National Workshop on “Industry –Institute Interaction” from 13<sup>th</sup> – 14<sup>th</sup> July 2007, at B.I.T. Sindri, Dhanbad.
5. Participated in All India Seminar on “Eco- Friendly Manufacturing” from 22<sup>nd</sup> –23<sup>rd</sup> Sept.2007 at B.I.T. Mesra, Ranchi
6. Participated in the training programme on Intellectual Property Rights (IPR), under TEQIP from 13<sup>th</sup> – 14<sup>th</sup> Sept. 2008 at B.I.T. Sindri.
7. Participated in three days National Workshop on ‘e-Granthalaya (NIC, Delhi) for Automation and Networking of Libraries’” from 22<sup>nd</sup> -24<sup>th</sup> Feb.2011 at BITT, Getlatu, Ranchi.
8. Participated in National Workshop on Intellectual Property Rights (IPR) on 26<sup>th</sup> October 2013, at B.I.T. Sindri, Dhanbad.
9. Participated in a Seminar on “World Water Day 2014: Water & Energy” jointly organized by BIT Sindri and Institution of Engineers, Dhanbad Local Centre on 22<sup>nd</sup> March 2014, at B.I.T.Sindri, Dhanbad.
10. Participated in a two days Workshop on Start-Up Orientation (Jointly organized by AICTE and NPIU, under TEQIP, Phase-III) on 16<sup>th</sup>-17<sup>th</sup> January 2018 at B.I.T. Mesra, Ranchi.
11. Participated in a two days Workshop on Outcome Based Education and Accreditation (Jointly organized by BIT Sindri and NPIU, under TEQIP, Phase-III) on 16<sup>th</sup>-17<sup>th</sup> March 2018 at B.I.T. Sindri, Dhanbad.
12. Participated in a two days Workshop on “Start-up India Programme” (Jointly organized by IIT(ISM) Dhanbad and BIT Sindri, Dhanbad under TEQIP, Phase-III) on 29<sup>th</sup>-30<sup>th</sup> September 2018 at IIT(ISM) Dhanbad.
13. Participated in a three days Workshop: “Orientation Programme on National Intellectual Property Rights (IPR) Policy”, Organized by Gujarat Council on Science

and Technology (GUJCOST), Gandhinagar & Supported by Dept. Of Sc. & Tech. , Govt. Of India, from 29<sup>th</sup> – 31<sup>st</sup> July 2019.

14. Participated in one day workshop on “Water Scenario of Dhanbad District: Emerging Challenges” (Organized by Dept. of Geology & Civil Engineering, BIT Sindri) under TEQIP III on 22<sup>nd</sup> July 2019 at B.I.T. Sindri.

#### **Short Term Course Attended:**

1. Attended UGC Refresher Course on Automation in Manufacturing Engineering From 28<sup>th</sup> Nov. -17<sup>th</sup> December 2005 in B.I.T. Mesra, Production Engg. Deptt.
2. Attended Short Term Course on Mechatronics Robotics and Industrial Automation under TEQIP 2<sup>nd</sup> – 7<sup>th</sup> Jan.2006. B.E.S.U. Shibpur, Howrah.
3. Attended Management Development Programme (MDP) on “Train the trainer” held during Feb. 26<sup>th</sup> to March 01, 2007 at XLRI, Jamshedpur
4. Attended Short Term Course on “Certified – PLC Programmer” under TEQIP from 7<sup>th</sup> – 12<sup>th</sup> April 2008 at B.I.T. Sindri.
5. Attended Short Term Course on “Introduction to Materials Handling” from 9<sup>th</sup> June-13<sup>th</sup> June 2008 at NITTTR, Kolkata.
6. Attended In House Training Programme on Pedagogy from 14<sup>th</sup> – 19<sup>th</sup> Oct. 2008, under TEQIP, at B.I.T. Sindri.
7. Attended Short Term Course on “Mechatronics and Automation” from 5<sup>th</sup> Oct- 9<sup>th</sup> Oct 2009 at NITTTR, Kolkata
8. Attended Forth SERC SCHOOL on “Micro Fabrication & Micro Machining Processes” from 5<sup>th</sup> April- 10<sup>th</sup> April 2010 at Jadavpur University Kolkata.
9. Attended Short term course on “Exposure on MATLAB” from 4<sup>th</sup> June-15<sup>th</sup> June 2012 at NITTTR, Kolkata.
10. Attended Short Term Training Program (STTP) of ISTE on “Performance Enhancement Skill” from 23<sup>rd</sup> July -3<sup>rd</sup> August 2012 at B.I.T. Sindri, Dhanbad.
11. Attended Short Term Training Program (STTP) on “Total Quality Management” Sponsored by Department of Personnel & Training (DoPT), MHA, Government of India, New Delhi from 17<sup>th</sup> Dec. -21<sup>st</sup> Dec. 2012 at Shri Krishna Institute of Public Administration, Ranchi.

12. Attended Short Term Training Program (STTP) of ISTE on “Personality Development” from 26<sup>th</sup> Oct -6<sup>th</sup> Nov 2015 at B.I.T. Sindri, Dhanbad.
13. Attended Short Term Training Program (STTP) of NITTTR on “Role of Technical Institutions in Implementation of Community Development Programme” from 28<sup>th</sup> June -7<sup>th</sup> July 2017 at Bhaga Polytechnic (B.I.T. Sindri Campus), Dhanbad.
14. Attended Short Term Training Program (STTP) on Active Learning from 18<sup>th</sup> June-22<sup>nd</sup> June 2018 at IIT, Gandhinagar under TEQIP-III initiative (MHRD, Govt. of India).
15. Attended Faculty Development Program (FDP) on ICT Tools for Teaching, Learning Process & Institutes from 13<sup>th</sup> January - 17<sup>th</sup> January 2020 at BIT, Sindri under TEQIP-III (Organized by Electronics and ICT Academy, NIT Patna).
16. Attended SWAYAM online certification course on Digital Transformation in Teaching Learning Process (6<sup>th</sup> April to 22<sup>nd</sup> April 2020).
17. Attended One Week Online Faculty Development Program on “Research Methodologies Tools and Techniques” Organized by Internal Quality Assurance Cell & Higher Learning and Research Centre, PCE, Nagpur from 29.05.2020 to 02.06.2020.
18. Attended One Week Online Faculty Development Program on “Innovations-IPR-Start-Ups” Organized by JIS College of Engineering, Kalyani, West Bengal (IIC) from 3<sup>rd</sup> June 2020 to 9<sup>th</sup> June 2020.
19. Attended Five Days National Webinar on “Startup Virtual Ideation Camp” (TEQIP-III Sponsored), Organized by Dumka Engineering College in Collaboration with Institutional Innovation Council, MHRD, Govt. of India & National Institute of Technology, Arunachal Pradesh, from 10<sup>th</sup> Aug to 14<sup>th</sup> Aug 2020.
20. Attended One Week Online Executive Program on “Research Methods” Organized by IIM Bodh Gaya under TEQIP-III from 18<sup>th</sup> Jan 2021 to 23<sup>rd</sup> Jan 2021.
21. Attended One Week Online Executive Program on “Mindful Leadership” Organized by IIM Bodh Gaya under TEQIP-III from 1<sup>st</sup> Feb 2021 to 5<sup>th</sup> Feb 2021.
22. Attended One Week Faculty Development Program on “Mechanical Engineering-Emerging Technologies” (MEET-2021)” organized by Mechanical Engineering Department, BIT Sindri in collaboration with TEQIP-III, from 24<sup>th</sup> to 29<sup>th</sup> May 2021
23. Attended 10 days Ansys Technical Webinar (Ansys Mechanical & CFD Training) from 1<sup>st</sup> June to 10<sup>th</sup> June 2021, Conducted by ARK Infosolutions Pvt. Ltd.

24. Attended One Week Faculty Development Program on “Advances in Manufacturing” (AIM-2021)” organized by Mechanical Engineering Department, BIT Sindri in collaboration with TEQIP-III, from 15<sup>th</sup> to 19<sup>th</sup> June 2021

25. Attended One Week e- Workshop on “Emerging Technologies and Strategies (EMTS-2021)” organized by Production Engineering Department from 5<sup>th</sup> to 9<sup>th</sup> July 2021.

26. Attended One Week e- Workshop on “Materials and Manufacturing: Insights to Modern Technologies (MMIMT)” organized by Production Engineering Department from 1<sup>st</sup> August to 5<sup>th</sup> August 2022.

**Development and Usage of Learning Resources/ Organizing Seminar/Workshop:**

1. Member of organizing committee in a National Conference on Agile Engineering, B.I.T. Mesra, Ranchi from 4<sup>th</sup> – 5<sup>th</sup> Oct. 1999.

2. Member of organizing committee in a “National Work/shop on Technological excellence through Value Engineering” (7<sup>th</sup> April 2007), at B.I.T. Sindri, Dhanbad.

3. Course Coordinator of Welding & Fitting / Turning Processes Programme (Mechanical Workshop) from 25<sup>th</sup> May 07 to 28<sup>th</sup> June 2007, under Services to Community & Economy, TEQIP.

4. Joint Organizing Secretary of National Workshop on “Technological Excellence of 21<sup>st</sup> Century-The Road Ahead” from 8<sup>th</sup> – 9<sup>th</sup> Feb. 2008 at B.I.T. Sindri, Dhanbad.

5. Co-convenor of a National Seminar on “Indian Nuclear Power Programme: Challenges and Opportunities- INCO-12” from 14<sup>th</sup> – 15<sup>th</sup> April and Awareness Program on Indian Nuclear Power from 13<sup>th</sup> -16<sup>th</sup> April 2012 at B.I.T. Sindri, Dhanbad.

6. Committee Member of a “National Seminar on “Energy and Environment for Sustainability – EES (2013)” from 16<sup>th</sup> -17<sup>th</sup> March 2013 at B.I.T. Sindri, Dhanbad.

7. Co-convenor of a National Seminar on “Recent Advancement in Manufacturing and Its Management (RAMM-14)” from 7<sup>th</sup> – 8<sup>th</sup> February 2014 at B.I.T. Sindri, Dhanbad.

8. Co-chairman of Technical Session-I (7<sup>th</sup> Feb), in an All India Seminar on “Recent Advancement in Manufacturing and its Management (RAMM-14)” from 7<sup>th</sup> -8<sup>th</sup> February 2014 at B.I.T. Sindri, Dhanbad.

9. Convener of Entrepreneurs Meet 2018 (15<sup>th</sup> April 2018) of Startup Cell (TEQIP-III) at B.I.T. Sindri, Dhanbad.

10. Convener of a five days Workshop entitled “Manufacturing Automation, Robotics and Factory of Future” under TEQIP-III (3<sup>rd</sup> October to 7<sup>th</sup> October 2018) at B.I.T. Sindri, Dhanbad.
11. Member of Advisory Committee in a five days Workshop entitled “Recent Advances in Manufacturing” under TEQIP-III (27<sup>th</sup> November to 1<sup>st</sup> December 2018) at B.I.T. Sindri, Dhanbad.
12. Convener of 2<sup>nd</sup> Entrepreneurial Conclave 2018 (11<sup>th</sup> December 2018) of Startup Cell (TEQIP-III) at B.I.T. Sindri, Dhanbad.
13. Convener of “Workshop on IPR” (17<sup>th</sup> September 2019) of Startup & Innovation Cell (TEQIP-III) at B.I.T. Sindri, Dhanbad.
14. Convener of 3 days Entrepreneurship Summit 2019 (15<sup>th</sup> to 17<sup>th</sup> November 2019) of Startup Cell (TEQIP-III) at B.I.T. Sindri, Dhanbad.
15. Co-convener of “International Workshop on Waterjet Processes and Related 4.0 Applications (7<sup>th</sup>-8<sup>th</sup> December 2019), organized by Department of Mechanical Engineering, IIT(ISM), Dhanbad, in collaboration with BIT Sindri (under the aegis of TEQIP-III, Twinning Activity).
16. Co-convener of “International Workshop on Precision Engineering and Management” (15<sup>th</sup> January 2020), organized by Department of Mechanical Engineering, IIT(ISM), Dhanbad, in collaboration with BIT Sindri (under the aegis of TEQIP-III, Twinning Activity).
17. Coordinator of the Webinar on “Quality Concepts” (QC, Kaizen, 5S, SPC & Six Sigma) Organized by Department of Production Engineering, BIT Sindri in Collaboration with QCFI, Rourkela Chapter from 5<sup>th</sup> June 2020 to 9<sup>th</sup> June 2020.
18. Coordinator of the online session on “Entrepreneurship” by Prof. Rajen Jaswa, Serial Entrepreneur & Adjunct Professor of IIT Bombay from 6<sup>th</sup> May 2020 to 24<sup>th</sup> June 2020, organized by BIT Sindri and in collaboration with Alumni Association of North America (BITSAANA).
19. Coordinator of the Webinar on “Design Thinking and Industry Focused AI” Organized by Production Engineering Department and Entrepreneurial Cell, BIT Sindri on 11<sup>th</sup> August 2020.
20. Coordinator of the Webinar on “e-Commerce Solutions through Government e-Marketplace (GeM)” Organized by Production Engineering Department and Entrepreneurial Cell, BIT Sindri on 13<sup>th</sup> August 2020.

21. Coordinator of the Webinar on “IoT and Its Application in Process Industries” Organized by Production Engineering Department, BIT Sindri on 20<sup>th</sup> August 2020.
22. Coordinator of the Webinar on “Operations and Scheduling Aspect of Flexible Manufacturing System” Organized by Production Engineering Department, BIT Sindri on 7<sup>th</sup> September 2020.
23. Coordinator of the Webinar on “Open Die Forging of Metal Matrix Composites: FEM Simulation Analysis” Organized by Production Engineering Department, BIT Sindri on 12<sup>th</sup> September 2020.
24. Coordinator of the Webinar on “Social Entrepreneurship” Organized by Entrepreneurial Cell, BIT Sindri in Association with Mahatma Gandhi National Council of Rural Education (MGNCRE), Hyderabad on 27<sup>th</sup> November 2020.
25. Co-Convener of the National Online Hackathon-2021 “Solution for Cement Industries” Organized by Department of Chemical Engineering, Department of Metallurgical Engineering, BIT Sindri in Association with Institution’s Innovation Council, BIT Sindri and Institute of Projects & Engineering (iPe), Bokaro Chapter on 20<sup>th</sup> -21<sup>st</sup> March 2021.
26. Convener of an online 3 days’ workshop on “Project Management” organized by Production Engineering Department and E-cell, BIT Sindri in collaboration with North America Alumni Chapter from 22<sup>nd</sup> to 24<sup>th</sup> May 2021.
27. Convener of One Week e- Workshop on “Emerging Technologies and Strategies (EMTS-2021)” organized by Production Engineering Department from 5<sup>th</sup> to 9<sup>th</sup> July 2021.
28. Coordinator of the Webinar on “Startup Scope in Innovative Supply Chain” Organized by Startup Cell in association with IIC 3.0, BIT Sindri on 8<sup>th</sup> July 2021.
29. Coordinator of the Webinar on “Electric Vehicles (Automotive Trends in Transformation from ICE Car towards Electrical)” Organized by Startup Cell (IIC 3.0) and Production Engineering Department, BIT Sindri on 16<sup>th</sup> July 2021.
30. Convener of three days e- Workshop on “Industrial Safety and Maintenance (ISM-2021)” organized by Production & Industrial Engineering Department from 4<sup>th</sup> to 6<sup>th</sup> October 2021.
31. Convener of One Week e- Workshop on “Materials and Manufacturing: Insights to Modern Technologies (MMIMT)” organized by Production Engineering Department from 1<sup>st</sup> August to 5<sup>th</sup> August 2022.



32. Convener of International Symposium on Entrepreneurship in the Digital Era- 2022 (ISEDE-2022) organized by Entrepreneur Cell (E-Cell) BIT Sindri in association with BITSAA, from 18<sup>th</sup> to 20<sup>th</sup> November 2022.

33. Convener of Two-Weeks FDP on “Entrepreneurship” organized by Innovation and Incubation Centre, BIT Sindri (IIC, BIT Sindri), Dhanbad, Jharkhand from 5<sup>th</sup> July to 15<sup>th</sup> July 2023.

### **Other Responsibilities in the Institute at Present:**

1. Prof. in –charge, Production Engineering Society (Oct. 2006).
2. Prof. in- charge, FMS Laboratory (July 2007).
3. Member of the Academic Council of Government Tool Room & Training Centre (GTRTC), Dumka (Aug. 2011).
4. Working as a Head of the Department, Production Engineering from 1<sup>st</sup> July 2016.
5. Member of Anti Ragging Committee (BIT Sindri) from July 2016.
6. Working as a MBA Coordinator from 30<sup>th</sup> January 2017.
7. Working as a Member Horticulture (Landscaping) from 12<sup>th</sup> May 2017.
8. Working as a Coordinator, Start-up, B.I.T. Sindri from December 2017.
9. Working as a Prof. in Charge, New Guest House from 28<sup>th</sup> September 2018.
10. Working as a Prof. in Charge, Incubation Centre, BIT Sindri from October 2018.
11. Working as a Nodal Officer, Atal Ranking of Institutions on Innovation Achievements (ARIIA) from November 2018.
12. Member of Grievances Cell for Gazetted and Non-Gazetted Employee from Feb 2019.
13. Working as a Convener, Steering Committee for GATE Classes from 24<sup>th</sup> June 2019.
15. Working as a Member Secretary in Audit Observation Committee from 30<sup>th</sup> July 2019.
16. Working as a Prof. in Charge, Innovation Cell, BIT Sindri from 7<sup>th</sup> August 2019.
17. Working as a Nodal Officer, IP Cell, BIT Sindri from 19<sup>th</sup> August 2019.
18. Working as an Expert Representative for Centre of Innovation, Incubation & Entrepreneurship (CIIE) of IIT(ISM) Dhanbad for Institution’s Innovation Council (IIC 2.0 & IIC3.0 for 2019-20 & 2020-21) from August 2019.
19. Working as a President, Institution’s Innovation Council (IIC 4.0) from October 2020.
20. Working as a nominated member for National Innovation and Startup Policy (NISIP) from June 2020.
21. Working as a Prof. in Charge, General Store, BIT Sindri from June 2021.
22. Working as a Member, Small Industries Research, Training and Development Organization (SIRTDO), Sindri from 18<sup>th</sup> August 2021.
23. Working as a Hostel Superintendent (Hostel No. 1, 2 & 3) from 1<sup>st</sup> October 2021.
24. Working as a Dean, Alumni Affairs from 10<sup>th</sup> Feb 2022.
25. Nominated member of Skill Strengthening for Industrial value Enhancement from 18<sup>th</sup> May 2022.
26. Member of National Credit Framework, Dept. of Higher Technical Education, Govt. of Jharkhand (June 2023).

### **Other Responsibilities held in the Institute:**

1. Prof. in- charge, Metrology Laboratory (Sep. 2000-Dec 2017).
2. Coordinator of Services to Community and Economy, TEQIP (August'05 to 31<sup>st</sup> March'09).
3. Assistant Prof. in- Charge, Central Library, B.I.T. Sindri (Sep. 2006 to June 2013).
4. Hostel Superintendent of Hostel No. 8 & Hostel No.22, B.I.T.Sindri (From Jan 2007 to Sept.2012).
3. Prof. in- charge, Deshpande Auditorium, B.I.T. Sindri. (Apr. 2007 to June 2013).
6. Assistant Prof. in-charge, Data Centre, B.I.T. Sindri (Oct.2007 to June 2013).
8. Joint Secretary, ALUMNI Association, B.I.T Sindri (Nov.2010 to Nov.2012).
9. Worked as a Head of the Department, Production Engineering from 11<sup>th</sup> March 2013 to 19<sup>th</sup> June 2013.
10. Worked as an Administrative Officer, B.I.T. Sindri (2<sup>nd</sup> July 2013 to 23<sup>rd</sup> Jan 2017).
11. Worked as a Comparer, University Examination from 2015-17 & 2018-19 Sessions.
12. Worked as a Hostel Superintendent (Hostel No. 18) from 1<sup>st</sup> December 2015 to April 2018.
13. Worked as a Coding Officer, University Examination from 14<sup>th</sup> May 2016- July 2017.
14. Worked as a PG Coordinator (Production Technology and Management) from 29<sup>th</sup> August 2016 to March 2019.
15. Worked as a Convener, Institution's Innovation Council (IIC) from October 2018 to September 2019.
16. Worked as a President, Institution's Innovation Council (IIC 2.0 & IIC 3.0) from October 2018 to September 2020.
17. Member of Housing Committee (for non-gazetted employee) from 17<sup>th</sup> Feb 2018 to 13<sup>th</sup> December 2020
18. Worked as an Administrative officer, BIT Sindri from December 2020 to May 2021
19. Worked as a Member Secretary in Collaborative Research Scheme (CRS) under TEQIP from 15<sup>th</sup> July 2019.

### **Papers being taught at Present:**

01. Industrial Management and Plant Engineering
02. Manufacturing Automation and Robotics
03. Production Planning and Control
04. Maintenance Technology and Safety Engineering
05. Operations Management (M.Tech.)
06. Project Engineering and Management (M.Tech.)

### **Papers Taught Earlier:**

01. Manufacturing process-I
02. Production Management

- 03. Engineering Metrology
- 04. Welding Technology
- 05. Foundry Technology
- 06. Industrial Robotics
- 07. Productivity Engineering and Management
- 08. Management Information System (M.Tech.)